

Transmissive / Transport Protocol Class Four

Skilled technologists can translate one to the other.

Transmissive The way many LCD (liquid crystal display) screens on laptops reflect light.

Transmit Bus In AT&T's Information Systems Network (ISN), the circuit on the backplane of the packet controller that transports message packets from sending device interface modules to the switch module.

Transmit Digital Interface TDI A 16-channel serial converter which converts the TDM Data Bus from parallel format to serial format for transmission between nodes.

Transmittance The ratio of transmitted power to incident power. In optics, frequently expressed as optical density or percent; in communications applications, generally expressed in decibels.

Transmitter The device in the telephone handset which converts speech into electrical impulses for transmission.

Transmitter Distributor A device in a teletypewriter system which converts the information from the parallel form in which it is used in the keyboard-printer to and from the serial form which it is transmitted on the transmission line.

Transmitter Start Code A coded control character or code sequence transmitted to a remote terminal instructing that terminal to begin sending information.

Transmobile The transmobile (not to be confused with a TRANSPORTABLE) is another type of cellular phone. It is essentially a standard 3-watt mobile unit — without an external battery pack — that can be quickly and easily moved from one vehicle to another. It draws its power from the vehicle's battery via a cigarette lighter plug. See Bag Phone.

Transmultiplexer A device that takes a bunch of voice analog phone conversations and converts them directly into a T-1 1.544 megabit per second bit stream — without the need for de-multiplexing the bunches down to individual conversations, then digitizing them, then bundling them up into a T-1 digital bit stream. A transmultiplexer does it all in one go.

Transparency 1. A data communications mode that allows equipment to send and receive bit patterns of virtually any form. The user is unaware that he is transmitting to a machine that receives faster or slower, or transmits to him faster or slower, or in a different bit pattern. All the translations are done somewhere in the network. He is unaware of the changes occurring — they are transparent. ISDN is planned to be transparent.

Transparency "Transparent Communications" 1. A basic objective of telecommunications systems, to make the transportation of information invisible to the user.

2. In data communications, a suspension of control character recognition in certain systems while information transfer is in progress.

Transparency/Opacity An imaging term. A setting available in many image processing functions that allows part of the underlying image to show through. 80 percent opacity is equivalent to 20 percent transparency.

Transparent Fine or sheer enough to be seen through. Something that is transparent exists for some reason, but is invisible, or nearly so. In other words, it does not impair or affect the users' operation of the system or feature. In fact, the user need not interact with the transparent feature, and generally is totally unaware that it exists. Think of a pane of glass that serves to protect the interior of a building and its occupants from the elements, but does not affect the users' ability to see through it.

When applied to telephone communications, the term is used to characterize the provision of a feature or service such as Automatic Route Selection in a such a way that the user is unaware of it and it has no effect on the way he uses the telephone. It's "transparent" to him. Translations, for example, are transparent to the telephone user. Similarly, protocol conversions are transparent. See also Translations, Transparency, and Virtual.

Transparent Bridging Transparent bridging is so called because the intelligence necessary to make relaying decisions exists in the bridge itself and is thus "transparent" to the communicating workstations. It involves frame forwarding, learning workstation addresses and ensuring no topology loops exist.

Transparent GIF Transparent GIFs are useful because they appear to blend in smoothly with the user's display, even if the user has set a background color that differs from that the developer expected. They do this by assigning one color to be transparent — if the Web browser supports transparency, that color will be replaced by the browser's background color, whatever it may be.

Transparent Image An image that has had one color, usually the background, designated as "transparent," so that when the image is displayed in a browser, the image's background is colored with the browser's background color. The effect is an image that does not have a visible rectangular background.

Transparent Mode 1. The operation of a digital transmission facility during which the user has complete and free use of the available bandwidth and is unaware of any intermediate processing. Generally implies out-of-band signaling (also called Clear Channel).

2. In BSC data transmission, the suppression of recognition of control characters, to allow transmission of raw binary data without fear of misinterpretation.

3. An operational mode supported by the T3POS PAD which enables the use of existing credit authorization and data capture link level protocols. This mode requires minimal modifications to the POS (Point Of Sale) terminal, and no modification to the ISP/Credit Card Association (CCA) host system software.

Transparent Networking Transport TNT A service for transporting of LAN data across WANs in which all responsibility for the WAN transport is assumed by the WAN and is therefore invisible to the LAN.

Transparent Routing A method used by a bridge for moving data between two networks. With this type of routing, the bridge learns which computers are operating on which network. It then uses this information to route packets between networks. It does not rely on the sending computers for its decision-making routine. A special kind of bridge combines the practice of transparent routing with source routing. It is called a source routing transparent (SRT) bridge. It examines each packet that comes by to see if it is using IBM's special source routing protocol. If so, this protocol is used to forward the packet. If not, the transparent method is used. Thus, the SRT bridge will support both IBM and non-IBM network protocols. See also Bridge and SRT. Compare with Source Routing.

Transponder There are two meanings: 1. A transponder is a fancy name for radio relay equipment on board a communications satellite. Just like its domestic microwave counterpart (which you see along highways), a transponder will receive a signal, amplify it, change its frequency and then send it back to earth. Transponders typically have 36 MHz bandwidth. Full motion, full color TV video requires a 6 MHz analog channel. 2. A transponder on an airline is a slightly different kettle of fish. When a radar signal strikes a plane, it activates an electronic transmitter called a transponder. The transponder sends out a coded signal to the ground radar. The code appears next to the radar image of the plane, allowing the controller to identify each plane under his control.

Transport Driver A network device driver that implements a protocol for communicating between Lan Manager and one or more media access control drivers. The transport driver transfers Lan Manager events between computers on the local area network.

Transport Efficiency An AT&T term for the ability to carry information through a network using no more resources than necessary. Transport efficiency is achieved, for example, by statistical transport, which removes silent intervals from voice, data or other traffic and carries only the bursts of meaningful user information.

Transport Layer Layer 4 in the Open Systems Interconnection (OSI) data communications reference model that, along with the underlying network, data link and physical layers, is responsible for the end-to-end control of transmitted information and the optimized use of network resources. Layer 4 defines the protocols governing message structure and portions of the network's error-checking capabilities. Also serves the session layer. Software in the transport layer checks the integrity of and formats the data carried by the physical layer (layer 1, the network wiring and interface hardware), managed by the data link layer (layer 2) and possibly routed by the network layer (layer 3, which has the rules determining the path to be taken by data flowing through a network). See OSI.

Transport Level Level 4 of the Open System Interconnection (OSI) model. The Transport level allows end users to communicate oblivious to network constraints imposed by the lower levels. Passes data from the Session level on to the Network Level and ensures that the data reaches the other end. Level 4 also provides for flow management.

Transport Medium The actual medium over which transmission takes place. Transport media include copper wire, fiber optics, microwave and satellites.

Transport Overhead 1.728 MB/s of bandwidth allocated within each SONET STS-1 channel to carry alarm indications, status information, and message signaling channels for the preventive and reactive maintenance of SONET transmission (Transport) links.

Transport Protocol A protocol that provides end-to-end data integrity and service quality on a network. Windows 95 Resource Kit defines transport protocol as how data should be presented to the next receiving layer in the networking model and packages the data accordingly. It passes data to the network adapter driver through the NDIS interface. See also Transport Protocol Class Four.

Transport Protocol Class Four TP4 An International Standards Organization (ISO) transport layer protocol designated as ISO IS 8073 Class Four Service. TP4 has been adopted by the U.S. Department of Defense and specified in the U.S.

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